

REMARKS

With the entry of the foregoing amendments, claims 1-8 are pending in the application.

At the outset, applicant thanks the Examiner for the courtesies extended during the telephone interview on October 21, 2009. In this regard, applicant agrees with the Interview Summary dated October 28, 2009.

The claim 1 has been amended to avoid any doubt that it concerns a molten multilayer dose structure prior to any compression molding. The claimed doses have a functional layer with a novel and nonobvious shape before compression molding. The claimed invention yields molded objects with superior barrier properties. The amendments are supported by the specification and figures, e.g., page 9, line 23 to page 10, line 25, and page 19, line 14. No new matter has been added.

The Examiner has lodged the following prior art rejections against the claims:

1. Claims 1-4 stand rejected as allegedly being obvious over Dohata (JP 2001-163321). Applicant notes that Figure 4 on page 3 of the Office Action and Figure 5 on page 4 of the Office Action are not found in Dohata.
2. Claim 5 stands rejected as allegedly being obvious over Dohata in view of Yang (US Patent Application Publication No. 2004/0106723).
3. Claims 6 and 7 stand rejected as allegedly being obvious over Dohata in view of Langecker (U.S. Pat. No. 4,883,630).
4. Claim 8 stands rejected as allegedly being obvious over O'Mara (U.S. Pat. No. 4,390,487) in view of Yoshikawa (U.S. Pat. No. 3,901,638).

Applicant traverses the rejections for at least the following reasons.

As set forth in claim 1, from which all the claims depend (except claim 5), the claimed invention requires:

A dose comprising:

a molten multilayer dose for compression molding, having an axis of symmetry for the realization of multilayer objects by compression molding, comprising

- a first synthetic resin and

- a functional layer imprisoned in said first resin, said

functional layer representing less than 20% of the volume of the multilayer dose,

wherein the functional layer forms the shell of a body of revolution about the axis of symmetry and the distance from the functional layer to the axis of symmetry is variable as measured before compression molding.

In contrast, the invention described in Dohata (the primary reference in all the rejections except the last rejection) relates to fuel containers made by co-extrusion blow molding. The aim of Dohata is to reduce fuel permeation through the container. More specifically, Dohata describes improvements in the pinch-off area and the cutting plane of an opening area for connections where the barrier layers are interrupted. For example, the openings are punched or cut in the drum section of the tank in order to connect various piping (connectors for fuel, etc...).

A first solution disclosed in Dohata is to add a barrier connector that covers the cutting plane of an opening of the container. A second solution is described for the

pinch-off area. An additional material with good barrier properties is added to the pinch-off seal where the barrier layers of the tank are interrupted.

In Dohata, figures 1 to 13 represent areas of the fuel tank where the barrier layer of the wall is interrupted (opening areas and pinch-off seal). More specifically, figure 2 shows the pinch-off area of the container covered by barrier material 5 (ref. C in the text).

The foregoing information and teachings of Dohata do not have any relationship with applicant's claimed invention of a multilayer dose for compression molding and where the multilayer dose has a specific structure. Dohata cannot be considered relevant to applicant's claimed invention for at least the following reasons:

- All figures of Dohata represent a molded fuel container (solid state, final product) in complete contrast to applicant's application that concerns a multilayer dose (molten resins, semi-finished product)
- Picture 2 of Dohata portrays the pinch-off area of a multilayer fuel tank. No comparison would reasonably be considered with the field of compression molding technology that is the subject of the claimed invention.
- Dohata describes a method to improve weak areas of the container such as
  - o cutting planes of opening areas required for connections, and
  - o utilizing a barrier gap in the pinch-off seal resulting from the blow molding process.

In the rejections citing Dohata, the examiner compares the blow molding technology in which a parison is co-extruded, with the compression molding technology in which a multilayer dose is co-extruded. To those skilled in these different art areas,

these technologies are so different that reasonable comparison is not possible between a parison and a dose, i.e.:

- A parison is always in contact with a tool (extrusion device, cutter, mold). A parison is always in a tube-like shape. The Dohata blowing process contains the main following steps:
  - o Parison extrusion (L/D ration of the parison > 5),
  - o Pinch-off the extremity of the parison, and
  - o Blowing the parison inside the cavity of a mold.
- In contrast to anything disclosed in Dohata, when the applicant's dose is transferred into the mold, the dose has no contact with any tools. The applicant's dose can either have a cylinder shape or an annular shape. The compression process contains the main following steps:
  - o Dose extrusion (L/D < 1.5)
  - o Dose cutting
  - o Dose transfer in the mold cavity
  - o Dose compression

These differences confirm the different technologies and the fact that Dohata's teachings would not lead one skilled in the injection molding art or one skilled in the compression molding art to the claimed invention.

In summary, Dohata by itself or in any reasonably apparent combination with the secondary references does not suggest the claimed invention of a uniquely structured molten multilayer dose for compression molding.

With respect to the rejection of claim 8, O'Mara in any combination with Yoshikawa would not yield the claimed invention. The two cited references are quite different from applicant's claim 8 process that produces the molten multilayer dose of claim 1 comprising

- a first synthetic resin and
- a functional layer imprisoned in said first resin, said functional layer representing less than 20% of the volume of the multilayer dose,

wherein the functional layer forms the shell of a body of revolution about the axis of symmetry and the distance from the functional layer to the axis of symmetry is variable as measured before compression molding.

In view of the foregoing amendments and remarks, applicant submits that this application is in condition for allowance. A notice to that effect is earnestly solicited.

If the Examiner has any questions, the undersigned may be contacted at 703-816-4009.

Respectfully submitted,

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